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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,907	10/17/2003	David P. Hannum	10971353-3	1941

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EXAMINER	
TRAN, DENISE	

ART UNIT	PAPER NUMBER
2189	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/687,907	HANNUM ET AL.	
	Examiner	Art Unit	
	Denise Tran	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-13 and 16-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-13 and 16-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *17 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The applicant's amendment's filed 3/29/05 has been considered. Claims 1-3, 6-13, and 16-19 are presented for examination. Claims 4-5, 14-15, and 20 have been canceled.

2. The objection to the specification is **withdrawn** due to the applicant's arguments.

3. The objection to the drawings is **withdrawn** due to the applicant's arguments.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim(s) 1-16 of patent No. US 6,823,434 contain(s) every element of claim(s) 1-3, 6-13, and 16-19 of the instant application and as such anticipate(s) claim(s) 1-3, 6-13, and 16-19 of the instant application.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896,

225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). " ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

6. The nonstatutory double patenting rejection is **maintained** until a timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) is submitted.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 7-8, 10-12, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller). The rejection is **maintained.**

As per claim 19, Miller teaches a system for disabling matching of prospective entries with tables entries resident in a fully associative table (e.g., col. 15, lines 35-60; col. 11, lines 55-65), the system comprising: a plurality of entry locations in said fully associative table (e.g., fig. 1, el. 104; col. 11, line 55-65); and a force update command for causing said plurality of entry locations to acquire predetermined illegal bit values not

present in prospective entries at ports connected to said fully associative table (e.g., col. 15, lines 35-50; col. 16, lines 10-15).

As per claims 1 and 11, Miller teaches a method/system for preventing matching of prospective entries with table entries stored in a fully associative table (e.g., col. 15, lines 40-50), the method/system comprising:

Writing illegal values to substantially all of said table entries in said fully associative table (e.g., col. 15, lines 40-60 and col. 16, lines 10-15);

Prohibiting said prospective entries from having said illegal values under normal program execution conditions (e.g., col. 11, lines 55-60 and col. 15, lines 45-46), thereby preventing any matching conditions between said table entries and said prospective entries (e.g. col. 15, lines 40-50).

As per claims 8 and 18, Miller shows storing memory addresses in said fully associative table (e.g. col. 15, lines 40-50).

As per claims 2 and 12, Miller teaches writing to be performed during power up of a system (e.g., col. 15, lines 35-50).

As per claims 7 and 17, Miller teaches updating entries in a fully associative table employing a pointer to indicate a first table location containing an invalid entry (e.g., col. 16, lines 19-30; i.e., an invalid address is a first table location).

As per claim 10, Miller shows a force update command for causing a plurality of entry locations in a table to acquire predetermined illegal value (e.g., col. 15, lines 35-45; col. 5, lines 15-40).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 6, 9, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller), in view of Geva, U.S. 6539541, (hereinafter Geva). The rejection is **maintained.**

As per claims 6, 9, and 16, Miller shows the fully associative table (e.g., fig. 1; col. 11, lines 55-60) for finding and validating data (e.g., fig. 1; col. 11, lines 55-60). Lozano does not explicitly shows a most recent advanced load instruction for a given check instruction or storing register numbers. Geva shows a most recent advanced load instruction for a given check instruction (e.g., col. 14, lines 15-65) and storing register numbers (e.g., col. 14, lines 20-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Geva into the system of Miller because it would allow handling advanced loads in a cache system; thereby, increasing the performance and speed processing of the system.

11. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al., U.S. Patent No. 5,809,528 (hereinafter Miller), in view of Hale et al., U.S. 6564317, (hereinafter Hale). The rejection is **maintained.**

As per claims 3 and 13, Miller does not explicitly show said writing step is initiated by executing a specific machine specific instruction. Hale shows writing step initiated by executing a specific machine specific instruction (e.g., col. 9, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Hale into the system of Miller because it would allow a secure boot process when performing initialization of a computer system upon power up or system reset.

12. Applicant's arguments filed 3/29/05have been fully considered but they are not persuasive.

13. In the remarks, the applicant argued that Miller's invalid value is a value which prospective entry can acquire during the normal course of program execution; thus, Miller does not teach an illegal value.

The examiner disagreed with the applicant's arguments because Miller teaches invalid value indicating content of a table entry is not allowed to use (i.e., illegal; e.g., col. 15, lines 17-20 and col. 15, lines 44-46) and the value which a prospective entry would preferably not acquire in a normal course of program execution (e.g., col. 11, lines 55-60; col. 15, lines 35-50). According to, col. 15, lines 35-50, Miller teaches value (i.e., invalid value) which a prospective entry (i.e., a requested entry at port) would not acquire in a normal course of program execution (i.e., the prospective entry only has address bits, data bits at ports and does not have invalid bits at ports in a normal course

program execution); therefore, Miller teaches an illegal value and "writing illegal values to substantially all of said table entries in said fully associative table" claims 1,11 (e.g., col. 15, lines 40-60 and col. 16, lines 10-15). Thus, Miller anticipates claims 1, 11 and 19.

14. In the remarks, the applicant argued that the cited col. 16, lines 10-15 did not teach the limitation "a force update command for causing said plurality of entry locations to acquired predetermined illegal bits values not present in prospective entries at ports connected to said fully associated table," claim 19.

The examiner disagreed with the applicant's arguments because as noted in the last office action, page 5, lines 1-2, Miller teaches a force update command for causing said plurality of entry locations to acquire predetermined illegal bit values not present in prospective entries at ports connected to said fully associative table (e.g., col. 15, lines 35-50; col. 16, lines 10-15). According to col. 15, lines 35-50 and col. 16, lines 10-15, Miller teaches a force update command (i.e., on power up, system reset or a "hit" from a snoop/compare operation) for causing said plurality of entry locations to acquire predetermined illegal bit values (i.e. table entries to have predetermined invalid bit values) not present in prospective entries at ports connected to said fully associated table (i.e., the prospective entry only has address bits, data bits at ports and does not have invalid bits at ports). Therefore, Miller teaches the limitation of claim 19. Accordingly, Miller anticipates claim 19

Also, Miller teaches invalid value indicating content of a table entry is not allowed to use (i.e., illegal; e.g., col. 15, lines 17-20 and col. 15, lines 44-46) and the value which a prospective entry would preferably not acquire in a normal course of program execution (e.g., col. 11, lines 55-60; col. 15, lines 35-50). According to, col. 15, lines 35-50, Miller teaches value (i.e., invalid value) which a prospective entry (i.e., a requested entry at port) would not acquire in a normal course of program execution (i.e., the prospective entry only has address bits, data bits at ports and does not have invalid bits at ports in a normal course program execution); therefore, Miller teaches an illegal value and "writing illegal values to substantially all of said table entries in said fully associative table" claims 1,11 (e.g., col. 15, lines 40-60 and col. 16, lines 10-15). Accordingly, Miller anticipates claims 1,11 and 19.

15. In the remarks, the applicant argued that the combination of Miller and Geva does not teach "writing illegal values to substantially all of said table entries in said fully associative table" claims 1 and 11.

The examiner disagreed with the applicant's arguments because Miller teaches invalid value indicating content of a table entry is not allowed to use (i.e., illegal; e.g., col. 15, lines 17-20 and col. 15, lines 44-46) and the value which a prospective entry would preferably not acquire in a normal course of program execution (e.g., col. 11, lines 55-60; col. 15, lines 35-50). According to, col. 15, lines 35-50, Miller teaches value (i.e., invalid value) which a prospective entry (i.e., a requested entry at port) would not acquire in a normal course of program execution (i.e., the prospective entry only has

address bits, data bits at ports and does not have invalid bits at ports in a normal course program execution); therefore, Miller teaches an illegal value and "writing illegal values to substantially all of said table entries in said fully associative table," claims 1 and 11 (e.g., col. 15, lines 40-60 and col. 16, lines 10-15). Thus, the combination of Miller and Geva teaches all the limitations of claims 6, 9, and 16.

16. In the remarks, the applicant argued that the combination of Miller and Hale does not teach "writing illegal values to substantially all of said table entries in said fully associative table" claims 1 and 11.

The examiner disagreed with the applicant's arguments because Miller teaches invalid value indicating content of a table entry is not allowed to use (i.e., illegal; e.g., col. 15, lines 17-20 and col. 15, lines 44-46) and the value which a prospective entry would preferably not acquire in a normal course of program execution (e.g., col. 11, lines 55-60; col. 15, lines 35-50). According to, col. 15, lines 35-50, Miller teaches value (i.e., invalid value) which a prospective entry (i.e., a requested entry at port) would not acquire in a normal course of program execution (i.e., the prospective entry only has address bits, data bits at ports and does not have invalid bits at ports in a normal course program execution); therefore, Miller teaches an illegal value and "writing illegal values to substantially all of said table entries in said fully associative table," claims 1 and 11 (e.g., col. 15, lines 40-60 and col. 16, lines 10-15). Thus, the combination of Miller and Hale teaches all the limitations of the claims 3 and 13.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise Tran whose telephone number is (571) 272-4189. The examiner can normally be reached on Monday, Thursday, and Friday from 8:45 a.m. to 5:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim, can be reached on (571) 271-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.T.
June 10, 2005